



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/729,905

12/09/2003

Dirk Sembritzki

4002-1024-1

3310

466 7590 05/28/2008

YOUNG & THOMPSON
209 Madison Street
Suite 500
ALEXANDRIA, VA 22314

EXAMINER

SIMONE, CATHERINE A

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

05/28/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/729,905	Applicant(s) SEMBRITZKI ET AL.	
	Examiner Catherine Simone	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 February 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 12-21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. The recitation “so that at least about 25% up to 100% of each protrusion of the first ply is over an unembossed area of the second ply” in claims 12 and 19 is deemed new matter. Also, the recitation “so that at least about 25% to 100% of each protrusion of said first ply is arranged opposite and over an unembossed area of said second ply” in new claim 21 is deemed new matter. The Specification only has support for “at least about 25% up to about 50% of each protrusion of one ply over an unembossed area of the respective other ply” (see last full paragraph on page 8 of the Specification). The Specification fails to specifically provide support for “at least about 25% up to 100% of each protrusion of the first ply over an unembossed area of the second ply”, as recited in claims 12, 19 and 21. Thus, this new recitation is deemed new matter.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 12-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schulz (EP 0 344 056).

Regarding claims 12-14 and 18, Schulz teaches a laminated tissue paper comprising at least two tissue plies with substantially identical embossing patterns, the embossing patterns consisting of embossing protrusions, wherein the at least two plies are displaced relatively to each other in a displacement direction, and laminated with the protrusions of the plies extending in the same direction (*see col. 3, lines 20-45*), such that the laminated tissue paper has a greater bulk than when the at least two plies are not displaced relatively to each other in the displacement direction (*col. 2, lines 49-50 and see claim 7*).

However, Schulz fails to specifically teach a maximum distance D in the displacement direction between an embossing protrusion of a first ply and an embossing protrusion of a second ply, which is displaced relative to the first one, being set as a function of the height H of the embossing protrusions and the length L of the embossing protrusions in the displacement direction so that D is equal to the smaller one of the values of $12H$ and $14L$, $8H$ and $10L$, and $6H$ and $8L$ so that at least about 25% up to 100% of each protrusion of the first ply is over an unembossed area of the second ply.

Schulz teaches a tissue paper product having the same structure as recited in independent claim 12. Specifically, the tissue plies in Schulz are embossed with the same pattern, then separated from one another and longitudinally displaced relative to one another, and then recombined into an embossed multi-ply sheet with the embossments out of register with one another to prevent nesting, which is the same to that of the tissue paper product disclosed in Applicant's present application (*see pages 5 and 6 of Applicant's Specification*). Furthermore, the resulting tissue paper product disclosed in Schulz has enhanced softness and bulk (*col. 2, lines 49-50 and col. 5, lines 5-6*), which is also the same as that of the tissue paper product disclosed in Applicant's present application. Therefore, one of ordinary skill in the art would have recognized that using a maximum distance D equal to the smaller one of the values of 12H and 14L so that at least about 25% up to 100% of each protrusion of the first ply is over an unembossed area of the second ply was a workable option from these teachings in Schulz because the tissue plies in Schulz are displaced relative to one another, and then recombined into an embossed multi-ply sheet with the embossments out of register with one another to prevent nesting, and the resulting tissue paper has enhanced bulk and softness, which is the same as that of the tissue paper disclosed in Applicant's present application. Thus, it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have modified the tissue plies in Schulz to have a maximum distance D in the displacement direction between an embossing protrusion of the first ply and an embossing protrusion of the second ply equal to the smaller one of the values of 12H and 14L, 8H and 10L, and 6H and 8L so that at least about 25% up to 100% of each protrusion of the first ply is over an unembossed area of the second ply in order to prevent nesting of the embossing protrusions of the respective plies and provide a

Art Unit: 1794

tissue paper product of enhanced bulk and softness. Furthermore, it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have modified the tissue plies in Schulz to have a maximum distance D in the displacement direction between an embossing protrusion of the first ply and an embossing protrusion of the second ply equal to the smaller one of the values of 12H and 14L, 8H and 10L, and 6H and 8L so that at least about 25% up to 100% of each protrusion of the first ply is over an unembossed area of the second ply, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art in absence of showing unexpected results. MPEP 2144.05 (II).

Regarding claim 15, note at least one further tissue ply, which is superimposed to the laminated tissue paper (*see col. 4, lines 14-23 and line 63*). Regarding claim 16, note at least one further tissue ply is another laminated tissue paper (*see col. 4, lines 14-23 and line 63*).

Regarding claim 17, note the plies are laminated by mechanical ply bonding (*see col. 3, lines 46-48*).

Regarding claims 19, 20 and 21, Schulz teaches a laminated tissue paper comprising a first tissue ply and a second tissue ply wherein the first and second plies have substantially identical embossing patterns, the embossing patterns consist of embossing protrusions (embossments), each protrusion having a height and length, the first ply and the second ply are displaced relatively to each other in a displacement direction, and laminated with the protrusions of the plies extending in the same direction (*see col. 3, lines 20-45 and see claim 7*) and the laminated tissue paper has a greater softness and a greater bulk (*col. 2, lines 49-50 and claim 7*)

than when the first ply and the second ply are not displaced relatively to each other in a displacement direction.

However, Schulz fails to specifically teach a maximum distance D in the displacement direction between an embossing protrusion of the first ply and an embossing protrusion of the second ply being equal to the smaller one of the values of 12H and 14L so that at least about 25% up to 100% of each protrusion of the first ply is over an unembossed area of the second ply.

Schulz teaches a tissue paper product having the same structure as recited in claims 19, 20 and 21. Specifically, the tissue plies in Schulz are embossed with the same pattern, then separated from one another and longitudinally displaced relative to one another, and then recombined into an embossed multi-ply sheet with the embossments out of register with one another to prevent nesting, which is the same to that of the tissue paper product disclosed in Applicant's present application (*see pages 5 and 6 of Applicant's Specification*). Furthermore, the resulting tissue paper product disclosed in Schulz has enhanced softness and bulk (*col. 2, lines 49-50 and col. 5, lines 5-6*), which is also the same as that of the tissue paper product disclosed in Applicant's present application. Therefore, one of ordinary skill in the art would have recognized that using a maximum distance D equal to the smaller one of the values of 12H and 14L so that at least about 25% up to 100% of each protrusion of the first ply is over an unembossed area of the second ply was a workable option from these teachings in Schulz because the tissue plies in Schulz are displaced relative to one another, and then recombined into an embossed multi-ply sheet with the embossments out of register with one another to prevent nesting, and the resulting tissue paper has enhanced bulk and softness, which is the same as that of the tissue paper disclosed in Applicant's present application. Thus, it would have been obvious

to one of ordinary skill in the art at the time the applicant's invention was made to have modified the tissue plies in Schulz to have a maximum distance D in the displacement direction between an embossing protrusion of the first ply and an embossing protrusion of the second ply equal to the smaller one of the values of 12H and 14L so that at least about 25% up to 100% of each protrusion of the first ply is over an unembossed area of the second ply in order to prevent nesting of the embossing protrusions of the respective plies and provide a tissue paper product of enhanced bulk and softness. Furthermore, it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have modified the tissue plies in Schulz to have a maximum distance D in the displacement direction between an embossing protrusion of the first ply and an embossing protrusion of the second ply equal to the smaller one of the values of 12H and 14L so that at least about 25% up to 100% of each protrusion of the first ply is over an unembossed area of the second ply, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art in absence of showing unexpected results. MPEP 2144.05 (II).

Response to Arguments

5. Applicants arguments filed 2/22/2008 have been fully considered but they are not persuasive.

Applicants argue "there is no recognition in Schulz that a change in the displacement distance of the embossing protrusions in two opposing plies increases bulk or thickness of the plies, e.g., where at each protrusion, or at least 25% to 100% of each protrusion, of one ply is over an unembossed area of the other ply as recited in claims 12 and 19-21".

However, it is to be pointed out that Schulz teaches the resulting tissue paper having enhanced bulk (col. 2, lines 49-50 and col. 5, lines 5-6). Schulz further discloses the embossments of one sheet being out of register with the embossments of the other sheet in order to prevent nesting, so the protrusion of one ply would inherently be over an unembossed area of the other ply. Thus, the resulting tissue paper in Schulz has enhanced bulk.

Applicants then argue “the Official Action has not established *prima facie* obviousness, as there is no evidence of record to suggest that the value of D would have been readily determined through routine experimentation depending on the desired end results”.

However, it is to be pointed out that Schulz teaches a tissue paper product having the same structure as recited in independent claims 1, 19 and 20. Specifically, the tissue plies in Schulz are embossed with the same pattern, then separated from one another and longitudinally displaced relative to one another, and then recombined into an embossed multi-ply sheet with the embossments out of register with one another to prevent nesting, which is the same to that of the tissue paper product disclosed in Applicant's present application (*see pages 5 and 6 of Applicant's Specification*). Furthermore, the resulting tissue paper product disclosed in Schulz has enhanced softness and bulk (*col. 2, lines 49-50 and col. 5, lines 5-6*), which is also the same as that of the tissue paper product disclosed in Applicant's present application. Therefore, one of ordinary skill in the art would have recognized that using a maximum distance D equal to the smaller one of the values of 12H and 14L so that at least about 25% up to 100% of each protrusion of the first ply is over an unembossed area of the second ply was a workable option from these teachings in Schulz because the tissue plies in Schulz are displaced relative to one another, and then recombined into an embossed multi-ply sheet with the embossments out of

Art Unit: 1794

register with one another to prevent nesting, and the resulting tissue paper has enhanced bulk and softness, which is the same as that of the tissue paper disclosed in Applicant's present application. Thus, it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have modified the tissue plies in Schulz to have a maximum distance D in the displacement direction between an embossing protrusion of the first ply and an embossing protrusion of the second ply equal to the smaller one of the values of 12H and 14L so that at least about 25% up to 100% of each protrusion of the first ply is over an unembossed area of the second ply in order to prevent nesting of the embossing protrusions of the respective plies and provide a tissue paper product of enhanced bulk and softness. Furthermore, it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have modified the tissue plies in Schulz to have a maximum distance D in the displacement direction between an embossing protrusion of the first ply and an embossing protrusion of the second ply equal to the smaller one of the values of 12H and 14L so that at least about 25% up to 100% of each protrusion of the first ply is over an unembossed area of the second ply, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art in absence of showing unexpected results. MPEP 2144.05 (II). As a result, a *prima facie* case of obviousness has been established.

Applicants further argue "Schulz fails to recognize the benefits of selecting the recited displacement D and increased bulk/thickness of the claimed invention...one benefit of the claimed invention is that fewer paper sheets are required to form a tissue paper roll of the conventional diameter and firmness...Schulz is not concerned with reducing the number of

sheets per roll by displacing, as Schulz obtains paper that is essentially the same thickness as a conventional embossed sheet".

This is not deemed persuasive. It is to be pointed out that the resulting tissue paper product in Schulz does have enhanced bulk (col. 2, lines 49-50 and col. 5, lines 5-6) and therefore would be expected to have the same benefits demonstrated by Applicants claimed tissue product.

Additionally, Applicants argue "the paper of Schulz has a thickness that is essentially the same as paper prior to displacement. The claimed paper includes a displacement D so that each protrusion is opposite an unembossed area, or at least 25% to 100% of each protrusion of one ply is over an unembossed area of the other ply, as recited in independent claims 12, 19 and 20. As a result, the claimed paper has a greater thickness or bulk than that disclosed by Schulz".

Again, it is to be pointed out that Schulz teaches the resulting tissue paper having enhanced bulk (col. 2, lines 49-50 and col. 5, lines 5-6). Schulz further discloses the embossments of one sheet being out of register with the embossments of the other sheet in order to prevent nesting, so the protrusion of one ply would inherently be over an unembossed area of the other ply. Thus, the resulting tissue paper in Schulz has enhanced bulk. Furthermore, it is to be pointed out that Schulz discloses that the re-joined two-ply tissue has a caliper, or thickness, *essentially* the same as, not *exactly* the same as, embossed two-ply tissue without the separation and recombining steps (col. 3, lines 59-65), which implies that the thickness of the re-joined two-ply tissue did change, even if it may be a slight change. Therefore, the two-ply tissue paper in Schulz is deemed to have some change in thickness in the end result. Again, Schulz teaches the resulting tissue paper having enhanced bulk.

Applicants' then argue "Schulz solely obtains a thickness that is essentially the same as that of two plies prior to displacement. Thus, the prevention of 'nesting', especially in view of Schulz as a whole, fails to suggest an increase in thickness or bulk as recited or any specific overlapping of protrusions and unembossed areas as recited".

This is not deemed persuasive. Schulz discloses that the embossments of each ply are out of register with one another to prevent nesting, so the protrusion of one ply would inherently be over an unembossed area of the other ply in order to prevent nesting. Also, it is to be pointed out that the resulting paper disclosed in Schulz has enhanced bulk (col. 2, lines 49-50 and col. 5, lines 5-6). Thus, the prevention of "nesting" in Schulz suggests an increase in bulk. Furthermore, it is to be pointed out again that Schulz discloses that the re-joined two-ply tissue has a caliper, or thickness, *essentially* the same as, not *exactly* the same as, embossed two-ply tissue without the separation and recombining steps (col. 3, lines 59-65), which implies that the thickness of the re-joined two-ply tissue did change, even if it may be a slight change. Therefore, the two-ply tissue paper in Schulz is deemed to have some change in thickness in the end result. Again, Schulz teaches the resulting tissue paper having enhanced bulk.

Applicants further argue "Schulz does not disclose that the displacement of the plies enhances or increases the bulk, thickness or softness. Indeed, the thickness is essentially the same as before displacement".

However, it is to be pointed out that Schulz teaches the resulting paper having enhanced bulk and softness. The resulting tissue paper in Schulz is a result of the displacement (col. 2,

lines 49-50 and col. 5, lines 5-6). Thus, Schulz clearly teaches the displacement of the plies enhancing bulk and softness.

In view of the foregoing, claims 12-21 are unpatentable over Schulz.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Catherine Simone whose telephone number is (571) 272-1501. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks can be reached on (571) 272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Catherine Simone/
Examiner, Art Unit 1794
May 20, 2008

/KEITH D. HENDRICKS/
Supervisory Patent Examiner, Art Unit 1794